

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

FINESSE WIRELESS, LLC,

Plaintiff,

v.

AT&T MOBILITY, LLC,

Defendant.

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Case No. 2:21-cv-00316-JRG-RSP
(Lead Case)

REPORT AND RECOMMENDATIONS

Before the Court are three motions for summary judgment (Dkt. Nos. 134, 135, 136) filed by Intervenor-Defendant Nokia of America Corporation. The motions include (1) Motion for Summary Judgment of Non-infringement of U.S. Patent No. 9,548,775 (Dkt. No. 134), (2) Motion for Summary Judgment for Non-infringement of U.S. Patent No. 7,346,134 (Dkt. No. 135), and (3) Motion for Summary Judgment of Invalidity of U.S. Patent No. 9,548,775 (Dkt. No. 136). For the following reasons, the motions for summary judgment should be **DENIED**.

I. Background

On February 24, 2021, Plaintiff Finesse Wireless, LLC initially filed suit against AT&T Mobility, LLC (“AT&T”) and Celco Partnership d/b/a Verizon Wireless (“Verizon”) (consolidated Case No. 2:21-cv-00063-JRG) alleging that the AT&T and Verizon wireless networks employ base stations that infringe U.S. Patent Nos. 7,346,134 (“134 Patent”) and 9,548,775 (“775 Patent”) (collectively, the “Asserted Patents”). The initial case progressed through part of fact discovery, and then the parties agreed to dismiss the case because of a potential standing issue.

On August 23, 2021, Finesse refiled suit against AT&T and Verizon,¹ again alleging that their networks employ certain base stations capable of mitigating passive intermodulation (PIM) interference in a manner that infringes the Asserted Patents. Dkt. No. 1. The parties agreed that fact discovery from the initial case would apply to the instant case. Dkt. No. 42 at ¶ 12(f). In addition, Nokia and Ericsson intervened as defendants because they manufacture components used in the accused base stations of the AT&T and Verizon networks. Dkt. No. 33. Over the course of this suit, Finesse has reached agreements with Ericsson² and Verizon,³ leaving AT&T, and Nokia (collectively, “Defendants”) as the remaining defendants in suit. Accordingly, Finesse now accuses certain Nokia devices and systems incorporated in AT&T’s network of infringing the Asserted Patents.

II. Summary Judgment Standard

A court “shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” FED. R. CIV. P. 56(a). A dispute of material fact is genuine if the evidence is such that a reasonable jury could return a verdict for the nonmoving party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). We consider “all evidence in the light most favorable to the party resisting the motion.” *Seacor Holdings, Inc. v. Commonwealth Ins. Co.*, 635 F.3d 680 (5th Cir. 2011) (internal citations omitted). It is important to note that the standard for summary judgment is two-fold: (1) there is no genuine dispute as to any material fact, and (2) the movant is entitled to judgment as a matter of law.

The movant has the burden of pointing to evidence proving there is no genuine dispute as to any material fact, or the absence of evidence supporting the nonmoving party's case. The

¹ Verizon was added to this suit through a consolidation order.

² Dkt. No. 101.

³ Dkt. No. 232.

burden shifts to the nonmoving party to come forward with evidence which demonstrates the essential elements of his claim. *Liberty Lobby*, 477 U.S. at 250. The nonmoving party must establish the existence of a genuine dispute of material fact for trial by showing the evidence, when viewed in the light most favorable to him, is sufficient to enable a reasonable jury to render a verdict in his favor. *Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986); *Duffy v. Leading Edge Products, Inc.*, 44 F.3d 308, 312 (5th Cir. 1995). A party whose claims are challenged by a motion for summary judgment may not rest on the allegations of the complaint and must articulate specific facts which meet his burden of proof. *Id.* “Conclusory allegations unsupported by concrete and particular facts will not prevent an award of summary judgment.” *Duffy*, 44 F.2d at 312 (citing *Liberty Lobby*, 477 U.S. at 247).

III. Motion for Summary Judgment for Non-Infringement of U.S. Patent No. 9,548,775 (Dkt. No. 134)

Finesse asserts claims 1, 4, 9, 16, 21, 29, and 36 of the ’775 Patent in this action. Dkt. No. 134-3 (Griffith email identifying asserted claims) at ¶ 1.⁴ The ’775 Patent generally relates to reducing signal interference in radio communications systems. Dkt. No. 109 (citing the ’775 Patent at 1:20–23). Transmitting signals at a power level outside of the linear operation range can increase the interfering effects of intermodulation products (“IMPs”), which are spurious frequency components generated when two or more signals pass through a non-linear device. *Id.* (citing the ’775 Patent at 2:22–27). Thus, the ’775 Patent teaches actively cancelling IMPs by digitally copying the IMPs and cancelling the system-generated IMPs in real time. *Id.* (citing the ’775 Patent at 6:50–53).

The ’775 Patent issued from U.S. Application No. 12/851,510 (the “’510 Application”). *Id.* at 2. Claim 1 of the ’775 Patent corresponds to claim 65 of the ’510 Application. *See* Dkt. No.

⁴ Citations correspond to document numbers and page numbers assigned through ECF

134-5 (8/18/2016 Office Action Resp.) at 3. During prosecution of the '510 Application, the Examiner rejected most of the claims, including claim 65, under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 7,876,867 ("Filipovic"), in view of US Pub. No. 2010/0136925 ("Lackey") and U.S. Patent No. 8,855,580 ("Dent"). *Id.* at 18–19. The Examiner also indicated claim 71—depending from claim 69, which depended from claim 68—contained allowable subject matter. *Id.* In response to the office action, the Applicant amended the independent claims to include similar limitations to what the Examiner identified as allowable in claim 71. *See* Dkt. No. 134-5 at 18. For example, Applicant made the following amendment to claim 65, which is representative of the amendment at issue:

65. (Currently Amended) A method for performing interference cancellation in a receiver, with a transmitter and the [a] receiver being co-located with each other, the method comprising:

generating intermodulation product (IMP) cancellation signals (ICSs) to cancel passive IMPs in the receiver, continuously and near real time, using copies of transmitter signals of the transmitter, wherein the passive IMPs are generated in passive transmitter components of the transmitter and receiver components of the receiver after a high powered amplifier (HPA) and transmitter filter of the transmitter, wherein the transmitter filter is coupled between the HPA and an antenna used by the transmitter, wherein generating the ICSs is based on a power series description of a non-linear process for generating the IMPs, and includes generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering $S1 \times S1 \times S2$ and $S1 \times S2 \times S2$ and $S1 \times S2 \times S3$ and $S1 \times S1 \times S3$ and $S2 \times S2 \times S3$ and $S1 \times S3 \times S3$ and $S2 \times S3 \times S3$, where n is an integer.

Dkt. No. 134-5 (8/18/2016 Office Action Resp.) at 3 (additions shown by underlining and deletions shown by brackets); *see also id.* at 4-5 (similar amendments to claims 68, 81, 82, 86, 89, 102, 103).

In the remarks section, the Applicant distinguished the claimed subject matter from the references on two grounds: (1) none of the references disclose “generating intermodulation product (IMP) cancellation signals (ICSs) for cancelling IMPs generated in passive transmitter

components of the transmitter and receiver components of the receiver after a high powered amplifier (HPA) and transmitter filter of the transmitter in order using copies of transmitter signals of the transmitter;” and (2) none of the references disclose “generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering $S1 \times S1 \times S2$ and $S1 \times S2 \times S2$ and $S1 \times S2 \times S3$ and $S1 \times S1 \times S3$ and $S2 \times S2 \times S3$ and $S1 \times S3 \times S3$ and $S2 \times S3 \times S3$, where n is an integer.” Dkt. No. 134-5 (8/18/2016 Office Action Resp.) at 19–20.

The Examiner issued a Notice of Allowance stating that the applied references (Filipovic, Lackey, and Dent) fail to disclose “wherein generating the ICSs is based on a power series description of a non-linear process for generating the IMPs, and includes generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering $S1 \times S1 \times S2$ and $S1 \times S2 \times S2$ and $S1 \times S2 \times S3$ and $S1 \times S1 \times S3$ and $S2 \times S2 \times S3$ and $S1 \times S3 \times S3$ and $S2 \times S3 \times S3$ ” (the “Disputed Limitation”). Dkt. No. 154-4 (Excerpts of Wells Rpt.) at 7. Within the Disputed Limitation is the term “three signals S1, S2, and S3,” which lies at the center of the dispute in this summary judgment motion.

Each of claims 4, 9, 16, 21, 29, and 36 of the ’775 Patent include the same or nearly the same limitation (Dkt. No. 134-2 (’775 Patent) at cols. 17–21), and the Applicant made similar arguments as to them during prosecution of the ’510 Application. *See* Dkt. No. 134-5 (8/18/2016 Office Action Resp.) at 20.

Since July 23, 2021, the parties in this case have disagreed as to the meaning of the signals “S1, S2, and S3” in the Disputed Limitation. Dkt. No. 154-13 (Emails between Finesse and Defendants) at 4, 8, 10, 12, 17, 20–21, 25–26, 28, 44–45, 48–49. Defendants assert that the S1, S2, and S3 signals refer to three unique input signals. Dkt. No. 134 at 6. Finesse agrees that the claims require using three separately identifiable signals for cancellation, but Finesse

contends that the claims do not require that these three signals be unique input signals. Dkt. No. 154 at 14. Neither party raised this claim term during the claim construction phase of this case, as reflected by its absence from the claim construction order. *See* Dkt. No. 109.

Nokia's accused products can be categorized based on the type of module the accused product includes. Dkt. No. 134 at 9. Both Defendants' noninfringement expert, James Proctor, and Finesse's infringement expert, Dr. Jonathan Wells, categorize Nokia's accused products in this manner for analysis. Dkt. No. 134-9 (Excerpts of Proctor Rpt.) at ¶¶ 345–368; Dkt. No. 134-4 (Excerpts of Wells Rpt.) at ¶¶ 104–120, 202–224. In analyzing the products at issue, Dr. Wells opines that a single input frequency of the accused products (*e.g.*, f_2) can be mapped to two signals (*e.g.*, S2 and S3) of the Disputed Limitation. Dkt. No. 134-4 (Excerpts of Wells Rpt.) at ¶¶ 207–224. In essence, Dr. Wells recognizes S1, S2, and S3 are separately identifiable signals, but are not unique input signals. Defendants disagree. Dkt. No. 134 at 12. Mr. Proctor's analysis concludes that none of the accused products include more than two signals, and therefore the accused products fail to satisfy the limitation requiring three signals S1, S2, S3. Dkt. No. 134-9 (Excerpts of Proctor Rpt.) at ¶¶ 345–368.

Defendants now move for summary judgment for non-infringement of the '775 Patent. Defendants assert that there is no genuine dispute of material fact that (1) the Disputed Limitation was added to every asserted claim of the '775 Patent during prosecution to overcome the prior art, (2) the Disputed Limitation requires three unique signals S1, S2, and S3 to generate the claimed intermodulation product cancellation signals (ICSs), (3) Nokia's accused products use, at most, two unique input signals for interference cancellation, and (4) the prosecution history of the '510 Application precludes a doctrine of equivalents argument. Dkt. No. 134 at 6.

Thus, Defendants argue that none of the accused products fall within the scope of the claims of the '775 Patent as a matter of law.

The issues before the Court are (1) whether the claims require the “three signals S1, S2, and S3” of the Disputed Limitation to be unique input signals, and (2) whether there is a genuine dispute of material fact that the accused Nokia products infringe the asserted claims.

A. “Three Signals S1, S2, and S3”

Do the asserted claims of the '775 Patent require three unique input signals to generate the claimed intermodulation product cancellation signals? The Court holds that they do not.

Determining whether a product or method infringes a patent is a two-step process. *Duncan Parking Techs., Inc. v. IPS Grp., Inc.*, 914 F.3d 1347, 1360 (Fed. Cir. 2019) (citing *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*) (citations omitted), *aff'd*, 517 U.S. 370 (1996)). The Court must first determine the proper construction of the asserted claims, which is a matter of law. *Id.* (citing *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1378 (Fed. Cir. 2008), and *Shire Dev., LLC v. Watson Pharm.*, 787 F.3d 1359, 1364 (Fed. Cir. 2015)). At the second step, the finder of fact must determine whether the asserted claim, as properly construed, “reads” on the product or method. *Id.* (citing *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1309 (Fed. Cir. 2009)).

Neither party raised this term during claim construction. Nevertheless, the dispute concerns the scope of the claim term “the three signals, S1, S2, and S3.” The Court therefore must resolve the dispute. *See O2 Micro Int’l Ltd. v. Beyond Innovation tech. Co.*, 521, F.3d 1351, 1360 (Fed. Cir. 2008) (“When the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute.”).

A claim term is generally given the ordinary and customary meaning that the claim term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (*en banc*) (citations omitted). In fact, “[t]here is a heavy presumption that claim terms are to be given their ordinary and customary meaning.” *Aventis Pharm. Inc. v. Amino Chems. Ltd.*, 715 F.3d 1363, 1373 (Fed. Cir. 2013) (citing *Phillips*, 415 F.3d at 1312–13). When construing claim terms, the primary resource Courts consider is intrinsic evidence, such as the specification and the prosecution history. *Id.* at 1316–17. Courts may also rely on extrinsic evidence such as expert and inventor testimony, dictionaries, and treatises. *Id.* at 1317.

1. Intrinsic Evidence as to the Meaning of S1, S2, and S3

Defendants first argue that intrinsic evidence supports their view that the claims require three unique input signals, “S1, S2, and S3”. Dkt. No. 134 at 17–19. In particular, Defendants argue that (1) the Applicant’s amendment and reliance on it during prosecution demonstrates a disavowal of claim scope, (2) the plain language of the claims terms supports this construction, (3) and the specification supports this construction. The Court disagrees.

To qualify as a disclaimer of claim scope, statements in the specification and prosecution history “must be clear and unambiguous, and constitute a clear disavowal of scope.” *Cont’l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 798 (Fed. Cir. 2019). “Where an applicant’s statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.” *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

Defendants argue that the prosecution history supports the requirement that the signals “S1, S2, and S3” be unique input signals. Dkt No. 134 at 6–9; Dkt. No. 175 at 7, n. 3.

Finesse responds that Defendants mischaracterize the prosecution history. Dkt. No. 154 at 6. Finesse asserts that the Examiner's statement on reasons for allowance properly references the entire limitation, noting that the generation of IMP cancellation signals be "based on a power series description of a non-linear process...." Dkt. No. 154 at 7 (citing Dkt. No. 154-4 (Excerpts of Prosecution History for the '775 Patent) at 7). Finesse also argues that the Applicant never stated that S1, S2, and S3 are required to be unique input signals. Dkt. No. 154 at 6.

Here, the Court agrees with Finesse. The entire Disputed Limitation recites "...wherein generating the ICSs is based on a power series description of a non-linear process for generating the IMPs, and includes generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering $S1 \times S1 \times S2$ and $S1 \times S2 \times S2$ and $S1 \times S2 \times S3$ and $S1 \times S1 \times S3$ and $S2 \times S2 \times S3$ and $S1 \times S3 \times S3$ and $S2 \times S3 \times S3$, where n is an integer." Dkt. No. 134-2 at 1:54–2:6 (emphasis added). The Applicant made at least two arguments as to why the Disputed Limitation overcomes the prior art cited by the Examiner (Dkt. No. 134-5 (8/18/2016 Office Action Resp.) at 19–20), and the Examiner cited the entire limitation in the reasons for allowance. Dkt. No. 154-4 (Excerpts of Prosecution History for the '775 Patent) at 7. Accordingly, Defendants mischaracterize the prosecution history. Even if Defendants accurately characterized the prosecution history, neither the amendment nor the Applicant's remarks during prosecution constitute a "clear and unambiguous" disavowal of claim scope that would require the S1, S2, and S3 signals to refer to unique input signals rather than three separately identifiable signals.

Second, Defendants argue that claim language itself supports their position that "S1, S2, and S3" must be unique input signals. Dkt. No. 134 at 17–18 (citing *Becton, Dickinson & Co. v. Tyco Healthcare Grp, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010); *Engel Indus., Inc. v.*

Lockformer Co., 96 F.3d 1398, 1404–05 (Fed. Cir. 1996); *HTC Corp. v. Cellular Commc'ns Equip., LLC*, 701 F. App'x 978, 982 (Fed. Cir. 2017); *SandBox Logistics LLC v. Proppant Express Inv. LLC*, 813 Fed. App'x 548 (Fed. Cir. 2020)). Defendants assert that there is no other reason why the claims would list seven separate signal multiplication combinations unless S1, S2, and S3 were distinct. *Id.* at 17. Defendants also attempt to analogize the facts here to other decisions involving patent claims reciting separate signals. *Id.* at 18 (citing *Super Interconnect Tech LLC v. Huawei Device Co.*, No. 2:18-CV-463-JRG, 2020 WL 60145, at *7 (E.D. Tex. Jan. 6, 2020) (distinguishing clock, data, and control signals from one another); Dkt. No. 175 at 6–7 (citing *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 843 F.3d 1315, 1343-44 (Fed. Cir. 2016) and *Am. Calcar, Inc. v. Am. Honda Motor Co.*, 651 F.3d 1318, 1338 (Fed. Cir. 2011)). According to Defendants, there is no evidence to the contrary, therefore the Court must presume that the different terms “S1, S2, and S3” connote different meanings. *Id.* at 18.

Defendants initially rely on cases identifying distinct structural components in the claims that cannot be satisfied by the same component. *Becton, Dickinson & Co.* 616 F.3d 1254 (distinguishing “hinged arm attached to the guard” from “spring means connected to the hinged arm”); *Engel Indus., Inc.*, 96 F.3d at 1405 (distinguishing “second portion” from “return portion”); *HTC Corp.*, 701 F. App'x at 982 (distinguishing “diverting unit” from “controlling entity” consistently identified as separate in specification); *Sandbox Logistics LLC*, 813 Fed. App'x at 555 (distinguishing “end walls” and “sidewalls” from “structural support members” recited separately in claims). Additionally, although *Power Integrations, Inc.* and *American Calcar, Inc.* involve claims with signals, the language in those cases more clearly delineated the metes and bounds of the claims. 843 F.3d at 1343 (claims requiring “a first feedback signal” and “a second feedback signal” could not be satisfied by a single signal); 651 F.3d at 1338 (claims

requiring “receiving signals from a plurality of sources” could not be satisfied by a single signal). Furthermore, none of the cases address the granularity of the issue here. The parties agree that signals S1, S2, and S3 are separately identifiable—the issue is whether that means each of S1, S2, and S3 are required to come from different inputs. Nothing in the claims distinguishes inputs for S1, S2, and S3, how the signals relate to different modules, or how the signals S1, S2, and S3 differ from one another beyond being separately identifiable. Accordingly, it is entirely appropriate that the claims would list S1, S2, and S3, and the seven signal multiplication combinations.

Third, Defendants argue that the specification describes two embodiments to generate the ICSs: (1) in situations in which the transmitter only has a few signals, digitally multiplying the individual signals together; and (2) in situations with a large number of small signals creating an IMP floor, cubing the composite digital signal samples. Dkt. No. 134 at 18–19. According to Defendants, the claims are all plainly directed to the first scenario. *Id.* at 19.

Finesse responds that the specification also explains generating the intermodulation products in two ways: (1) digitally multiplying individual signals together to create the ICS signals; and (2) using composite digital signal samples. Dkt. No. 154 at 18. According to Finesse, the two calculations described in the specification of the ’775 Patent describe calculations that achieve the same result—a power series description of third-order intermodulation products. *Id.*

The Court again finds that Defendants’ argument fails. While the “specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v.*

Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004). There is no clear indication that the claims fall within a specific embodiment described in the specification, and there is evidence to the contrary. Either way, the result would not necessarily limit the signals S1, S2, and S3 to three unique input signals as Defendants suggest.

2. *Extrinsic Evidence as to the Meaning of S1, S2, and S3*

Defendants also argue that the extrinsic evidence supports their construction. Dkt. No. 134 at 19–20. Defendants assert that Finesse’s validity expert, Dr. Ray Nettleton, agrees that there are two embodiments described in the patent and the claims only cover one. *Id.* at 19 (citing 134-13 at 146:16–147:15).

Finesse responds that Defendants mischaracterize Dr. Nettleton’s position by pulling statements out of context. Dkt. No. 154 at 18, n. 1. Additionally, Finesse uses deposition testimony from Mr. Smith, the inventor, to explain the S1, S2, and S3 claim term. *Id.* at 17–18 (citing 154-14 (8-4-2022 Smith Dep. Tr.) at 22:3–14, 29:2–25). Mr. Smith describes S1, S2, S3 as representing signals generally, and he explains that they can be the same signal or different signals. *Id.* He explains that using the S1, S2, S3 notation to represent three signals is common practice, and the purpose of separately listing S1, S2, and S3 is to show three signals are used to generate the third order intermodulation products. Dkt. No. 154-14 (8-4-2022 Smith Dep. Tr.) at 27:23–29:25.

Here, the Court finds that the extrinsic evidence also does not limit the signals S1, S2, and S3 to three unique input signals. While the extrinsic evidence is generally less persuasive than intrinsic evidence, it may nevertheless be helpful to determine context. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331–32 (2015); *Phillips*, 415 F.3d at 1317. The intrinsic and extrinsic evidence here point to the same result.

In light of the intrinsic and extrinsic evidence of record, the Court holds that the signals S1, S2, and S3 must be separately identifiable, but the Court hereby rejects Defendants’ argument that the signals S1, S2, and S3 are three unique input signals. Accordingly, the Court holds that the plain and ordinary meaning of the terms S1, S2, and S3 as recited in the claims of the ’775 Patent does not foreclose Finesse’s infringement theory as a matter of law.

B. *Nokia’s Accused Products*

Based on the plain and ordinary meaning of the three signals S1, S2, and S3 as claimed, is there a dispute of material fact that the accused products infringe the asserted claims of the ’775 Patent? The Court holds that there is.

“Summary judgment on the issue of infringement is proper when no reasonable jury could find that every limitation recited in a properly construed claim either is or is not found in the accused device either literally or under the doctrine of equivalents.” *PC Connector Sols. LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1364 (Fed. Cir. 2005) (citing *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353–54 (Fed. Cir. 1998)). To be entitled to summary judgment of noninfringement, the moving party must demonstrate that the facts and inferences, when viewed in the light most favorable to the nonmoving party, would not persuade a reasonable jury to return a verdict in favor of the nonmoving party. *See Meyer Intellectual Props. Ltd. v. Bodum, Inc.*, 690 F.3d 1354, 1370 (Fed. Cir. 2012)

Defendants assert that the Nokia products include at most two unique input signals, regardless of the type of module. Dkt. No. 134 at 12; Dkt. No. 134-9 (Excerpts of Proctor Rpt.) at 12–26.

Finesse responds that the Defendants’ documentation confirms that the accused products all use three signals, regardless of whether two of the three signals share the same frequency. Dkt. No. 154 at 11–14. Furthermore, in his report, Dr. Wells analyzes each type of accused product and concludes that each of the accused products infringes the asserted claims of the ’775 Patent. Dkt. No. 134-4 (Excerpts of Wells Rpt.) at ¶¶ 207-224.

Here, since the parties’ experts dispute this point, a colorable infringement issue remains for the jury to resolve, and thus summary judgment as to noninfringement of the ’775 Patent is improper. Viewing the facts and inferences in the light most favorable to Finesse, as the non-moving party, Defendants cannot demonstrate that no reasonable jury would find that the accused products infringe the ’775 Patent. Accordingly, this motion should be **DENIED**.

IV. Motion for Summary Judgment for Non-Infringement of U.S. Patent No. 7,346,134 (Dkt. No. 135)

Finesse asserts claims 1, 2, and 3 of the ’134 Patent. Dkt. No. 135 at 6 (citing Dkt. No. 135-3 (Finesse’s Asserted Claims), Dkt. No. 135-4 (Excerpts of Wells Rpt.) at ¶¶ 2–3). The ’134 Patent generally relates to reducing signal interference in radio communications systems. Dkt. No. 109 (citing the ’134 Patent at 1:24–27). Wireless communications systems are often subject to interfering signals that inhibit the receiver from receiving the intended information signal. *Id.* (citing the ’134 Patent at 1:55–60). To address this problem, the patent teaches sampling the entire band in which information signals (also referred to as signals of interest) *and* interfering signals may be received. *Id.* (citing the ’134 Patent at 2:5–8).

Claim 2 of the '134 Patent recites:

2. An apparatus comprising:

- means for over-sampling, at a desired frequency, a pass band of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals, the interference generating signals capable of generating intermodulation products inband of the signals of interest;
- means for isolating signals of interest in the bit stream using one or more decimating filters;
- means for isolating Source signals that generate one or more intermodulation products inband of the signal of interest using one or more decimating filters;
- means for computing an estimate of each of the one or more intermodulation products from the Source signals that generate the one or more intermodulation products;
- means for canceling out one or more inband intermodulation products using the estimate of the intermodulation products; and
- means for performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner, wherein the means for performing phase and amplitude adjustment of the estimations comprises means for performing Sub sample phase shifts to make a phase adjustment on the estimations of the intermodulation product interfering signals.

Dkt. No. 135-2 ('134 Patent) at 28:27–52. Claim 1 is a conceptually similar method claim and claim 3 a conceptually similar apparatus claim. *See id.* at 28:2–29:7.

On August 23, 2022, Finesse served the opening report of its infringement expert, Dr. Jonathan Wells. Dkt. No. 135-4 (Excerpts of Wells Rpt.). The next day, the Court issued the Claim Construction Order. Dkt. No. 109. Multiple constructions deviated from what either party proposed for the construction, so the parties supplemented their expert reports. *See* Dkt. Nos. 124, 125. Finesse supplemented Dr. Wells' infringement report, in which Dr. Wells adopts the Court's constructions for his infringement analysis. Dkt. No. 158-14 (Wells Supp. Rpt.) at ¶¶ 8–9. Dr. Wells analyzes claims 2 and 3 of the '134 Patent based on the Court's constructions and determines that all of the accused Nokia products infringe the claims. *Id.* at ¶¶ 17–100.

Defendants’ noninfringement expert, Mr. Proctor, similarly uses the Court’s constructions in analyzing claims 2 and 3 of the ’134 Patent, but Mr. Proctor concludes that none of the accused products meet the limitations including the terms “in a closed loop manner,” “oversampling” and “sampling unit,” and “signal of interest.” Dkt. No. 135-12 (Excerpts of Proctor Rpt.) at ¶¶ 282–314.

Defendants move for summary judgment for non-infringement of the ’134 Patent on three separate grounds: (1) the undisputed facts show that the accused products do not perform phase amplitude adjustments “in a closed loop manner,” as required by the claims; (2) there is no evidence showing that any of the accused products include either a sigma delta modulator or a flash analog to digital converter as required by the “oversampling” and “sampling unit” claim terms construed by the Court; and (3) none of the accused products meet the “signal of interest” requirement of the claims, as construed by the Court. Dkt. No. 135 at 5. Thus, Defendants argue that none of the accused products falls within the scope of the claims of the ’134 Patent as a matter of law.

The issues before the Court are whether there are genuine disputes of material fact that the accused products meet the following claim limitations: (1) performing phase and amplitude adjustments in “in a closed loop manner,” (2) “means for oversampling” and “sampling unit,” and (3) “signal of interest.”

A. “In A Closed Loop Manner”

Is there a dispute of material fact that the Nokia accused products perform phase and amplitude adjustments “in a closed loop manner”? The Court holds that there is.

As previously indicated, patent infringement is a two-step inquiry. *Duncan Parking Techs., Inc.*, 914 F.3d at 1360 (citing *Markman*, 52 F.3d at 976 (*en banc*) (citations omitted),

aff'd, 517 U.S. 370). “Patent infringement, whether literal or by equivalence, is an issue of fact, which the patentee must prove by a preponderance of the evidence.” *Siemens Med. Sols. USA, Inc. v. Saint-Gobain Ceramics & Plastics, Inc.*, 637 F.3d 1269, 1279 (Fed. Cir. 2011) (citing *Cross Med. Prod., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1310 (Fed. Cir. 2005)). “Summary judgment on the issue of infringement is proper when no reasonable jury could find that every limitation recited in a properly construed claim either is or is not found in the accused device either literally or under the doctrine of equivalents.” *PC Connector Sols. LLC*, 406 F.3d at 1364 (citing *Bai*, 160 F.3d at 1353–54).

Here, the Court has already determined the scope of the claims as to limitations including the term “in a closed loop manner.” Dkt. No. 109 at 28–29. Since the limitations including this term were construed as means-plus function under 35 U.S.C. § 112, ¶ 6 (pre-AIA), the functional terms of claims are limited “to only the structure, materials, or acts described in the specification as corresponding to the claimed function and equivalents thereof.” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347 (Fed. Cir. 2015) (*en banc* in relevant portion). With respect to claim 2, the Court’s construction provides:

<p>“means for performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner, wherein the means for performing phase and amplitude adjustment of the estimations comprises means for performing subsample phase shifts to make a phase adjustment on the estimations of the intermodulation product interfering signals” (’134 Patent, Claim 2)</p>	<p>Pursuant to 35 U.S.C. § 112, ¶ 6: Function: performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner, wherein the means for performing phase and amplitude adjustment of the estimations comprises means for performing subsample phase shifts to make a phase adjustment on the estimations of the intermodulation product interfering signals Structure: a processor programmed to convert original samples to new samples using weighted interpolation and to map the new samples into the time slots of the original samples, and adjust the amplitude by scaling</p>
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Dkt. No. 109 at 28–29 (similar for claim 3). Therefore, the term “in a closed loop manner” is given its plain and ordinary meaning consistent with the Court’s construction.

Defendants first argue that a “closed loop” system refers to a system in which the system’s output is measured and fed back to adjust the system’s operation. Dkt. No. 135 at 19. Defendants distinguish a closed loop system from an “open loop system” in which the output is not fed back into the system. *Id.* Defendants provide testimony from Teddy Davis, a Nokia engineer, Finesse’s validity expert, Dr. Nettleton, and the inventor, Francis Smith, as extrinsic evidence that a “closed loop system” uses feedback, whereas an “open loop system” does not. *Id.* at 19–20 (citing 135-7 (8-17-22 Davis Dep. Tr.) at 153:14-23; 135-8 (Excerpts of Nettleton Rpt.) at 51; 135-9 (10/10/22 Nettleton Rough Tr.) at 60:6–13; 135-10 (8-30-22 Smith Dep. Tr.) at 229:1–3). In addition, Defendants argue that the ’134 Patent specification confirms that the plain meaning of adjusting in “a closed loop manner” requires feedback. Dkt. No. 174 at 6 (citing Dkt. No. 135-2 (’134 Patent) at 9:45-59, 16:53-63, 17:4-51). Accordingly, Defendants conclude that the term “in a closed loop manner” means “utilizing output feedback.” *Id.* at 20.

Finesse argues that the Defendants improperly attempt to restrict the plain and ordinary meaning of the term “in a closed loop manner” to require “feedback.” Dkt. No. 158 at 18–19 (citing *Intellectual Ventures II LLC v. BITCO Gen. Ins. Corp.*, No. 6:18-CV-00298, 2019 WL 999902, at *3 (E.D. Tex. Feb. 28, 2019)). Finesse asserts that Defendants failed to brief the argument that “closed loop” requires feedback during claim construction, and the Claim Construction Order provides explicit guidance as to the function and structure of the limitations including the “in a closed loop manner” term. *Id.* In addition, Finesse argues that the term “in a closed loop manner” has a different meaning than “closed loop.” *Id.* at 18, n. 3. Finesse further argues that Dr. Wells is one of ordinary skill in the art, and his opinions provide ample evidence

as to how that term would be understood. *Id.* at 19–20.

Here, the Court rejects Defendants’ attempt to restrict the plain and ordinary meaning of the claims. The Court issued the Claim Construction Order with limitations encompassing “in a closed loop manner” well before the briefing for summary judgment. Certain experts have prepared, and supplemented reports based on the Court’s constructions. In the interest of finality, the issue of construction—especially terms within limitations that have already been construed—will not be endlessly litigated. *Cent. Admixture Pharmacy Servs., Inc. v. Advanced Cardiac Sols., P.C.*, 2006 WL 4448613, at *16, n.18 (N.D. Ala. Jan. 13, 2006), *aff’d in relevant part*, 482 F.3d 1347, 1356 (Fed. Cir. 2007). Defendants’ citations to the specification as intrinsic evidence as to the meaning of the claim term fail because each section Defendants cite plainly includes the language “in one embodiment....” Dkt. No. 135-2 at 9:45-59, 16:53-63, 17:4-51. In the ’134 Patent, the term “in a closed loop manner” only appears in the claims, and the term “feedback” is absent from the patent. *See generally* Dkt. No. 135-2. In addition, there is extrinsic evidence supporting both Finesse’s and Defendants’ positions. Thus, the Court holds that the plain and ordinary meaning does not foreclose Finesse’s infringement theory as a matter of law. The parties’ experts may offer opinions on whether the plain and ordinary meaning to one of skill in the art of the “in a closed loop manner” term encompasses devices and systems that do not utilize feedback.

Next, Defendants assert that none of the accused products perform phase and amplitude adjustments utilizing feedback, and therefore none of the products perform phase and amplitude adjustments “in a closed loop manner” as required by the claims. *Id.* at 20–23.

Finesse responds that Dr. Wells provides evidence detailing how each of the accused products performs phase and amplitude adjustments “in a closed loop manner,” as required by the claims. *Id.* at 19–20 (citing 158-3 (Wells Rpt.) at ¶¶ 435, 436, 452, 453, 463, 464).

Here, the Court holds there is a dispute of material fact as to whether the accused products perform phase and amplitude adjustments “in a closed loop manner.”

B. “Means for Oversampling” and “Sampling Unit”

Is there a dispute of material fact that the Nokia accused products include “one or more sigma delta modulators or flash A/D converters” as required by the Court’s construction? The Court holds that there is.

The Court construed the terms “means for oversampling” and “sampling unit” during claim construction under 35 U.S.C. § 112, ¶ 6 (pre-AIA). *See* Dkt. No. 109 at 27–28. The Court’s construction provides:

<p>“means for over-sampling, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals” (’134 Patent, Claim 2)</p>	<p>Governed by § 112 ¶6. Function: over-sampling, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals Structure: one or more sigma delta modulators or flash A/D converters</p>
<p>“a sampling unit to sample, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals (’134 Patent, Claim 3)</p>	<p>Governed by 35 U.S.C. § 112, ¶ 6: Function: sample, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals Structure: one or more sigma delta modulators or flash A/D converters</p>

Dkt. No. 109 at 28–29. Accordingly, the terms require “one or more sigma delta modulators or

flash A/D converters” or equivalents thereof. *Williamson*, 792 F.3d at 1347.

Defendants argue that Finesse has not identified either a “sigma delta modulator” or a “flash ADC” as required by the claims, and that Dr. Wells’ explanations under the doctrine of equivalents are insufficient. Dkt. No. 135 at 24. Defendants assert that Dr. Wells’ opinions are fatally flawed because he opines that the claimed structure is satisfied by a particular ADC component manufactured by Texas Instruments without explaining how that part is equivalent to the claimed sigma delta modulators of Flash A/Ds. *Id.* at 24–25. According to Defendants, Dr. Wells’ opinions as to the doctrine of equivalents stretch the claim language from “one or more sigma delta modulators or flash A/D converters” to “one or more A/D converters.” *Id.* at 26–27.

Finesse responds that Dr. Wells offers opinions and evidence in support of infringement under the doctrine of equivalents that are clearly identified in his report and consistent with the Court’s constructions. Dkt. No. 158 at 25 (citing 158-14 (Wells Supp. Rpt.) at ¶¶ 25 and 26). Finesse argues that Dr. Wells explains that the ADC structure is equivalent to the recited “sigma delta modulators or flash A/D converters” and performs the recited function. *Id.* at 25–26 (citing 158-14 (Wells Supp. Rpt.) at ¶¶ 25 and 26). In addition, Finesse asserts that Dr. Wells’ deposition testimony that Defendants cite to undermine the reliability of Dr. Wells’ opinions omit clarifying context. *Id.* at 26–27 (citing 158-5 (Excerpts of 4-10-22 Wells Dep. Tr.) at 187:21–188:2). Additionally, Finesse argues that the cases Defendants rely on are distinguishable. *Id.* at 27.

Here, the Court finds that Finesse properly raises a doctrine of equivalents infringement theory as to the terms “means for oversampling” and “sampling unit”. The parties’ experts dispute this point, and therefore there is a dispute of material fact for the jury to resolve.

C. “Signal of Interest”

Is there a dispute of material fact that the Nokia accused products include a “signal of interest” as required by the claims? The Court holds that there is.

Defendants assert that base stations only try to receive the uplink signal and do not try to receive signals that the base station broadcasts to handsets on the downlink. Dkt. No. 135 at 27. Defendants also assert that the claim term “signal of interest” has been partly construed to mean “a signal that the receiver is trying to receive.” *Id.* Therefore, Defendants assert, the signal of interest must be an uplink signal intended to be received by the base station. *Id.* Defendants further argue that Finesse’s infringement theories misidentify the “signal of interest” so the accused products cannot infringe the asserted claims, each of which requires a “signal of interest.” *Id.* According to Defendants, Finesse’s infringement expert, Dr. Wells, concludes that the downlink transmit signal is the signal of interest, and Finesses’ validity expert, Dr. Nettleton, agrees that there is only one signal that a receiver is trying to receive. *Id.* at 27–28,

Finesse responds that the parties agreed to a construction for the term “signal of interest” to mean “with respect to the receiver, a signal that the receiver is trying to receive and send, in digital form, to the baseband processor.” Dkt. No. 158 at 30 (citing Dkt. No. 88-1 (Joint Claim Construction Chart) at 1–8). Finesse argues that Dr. Wells’ report demonstrates that the “signal of interest” limitation of the claims is met by each of the accused products. *Id.* (citing 158-3 (Wells Rpt.) at ¶ 335, 343, 351). Finesse asserts that Defendants’ argument is premised on an incorrect assumption that Dr. Wells identified a downlink transmit signal as the signal of interest. *Id.* at 31. Finesse clarifies that Dr. Wells states “‘DL (TX) reference’ signal is with respect to the receiver, a signal that the receiver is trying to receive and send, in digital form, to the baseband processor, and thus meets the agreed construction of a ‘signal(s) of interest.’” *Id.* (citing 158-3

(Wells Rpt.) at ¶ 343–44). In addition, Finesse explains that Dr. Wells consistently uses apostrophes around the term “DL (TX) reference” signal in his report to reflect that it refers to a receive signal. *Id.* (citing 158-3 (Wells Rpt.) at paragraphs throughout).

Here, the Court rejects Defendants’ arguments. The parties agreed to a construction consistent with the language of the ’134 Patent, which is also consistent with the language Dr. Wells uses in his report. Accordingly, the Court holds that there is a dispute of material fact as to whether the accused products include a “signal of interest” as required by the claims.

In sum, there are disputes of material fact with respect to each term raised by the Defendants. Accordingly, summary judgment as to noninfringement of the ’134 Patent is improper, and this motion should be **DENIED**.

V. Motion for Summary Judgment of Invalidity of U.S. Patent No. 9,548,775 (Dkt. No. 136)

The claims of the ’775 Patent at issue in this case include claims 1, 4, 9, 16, 21, 29, and 36. Dkt. No. 136-3 (Excerpts of Wells Rpt.) at ¶¶ 2–3. The ’775 Patent issued from U.S. Application No. 12/851,510 (the “’510 Application”), which was filed on August 5, 2010. Dkt. No. 136-2 (’775 Patent) at 1. The ’510 Application was a continuation-in-part of Application No. 11/851,185, filed on September 6, 2007, which has now issued as U.S. Patent No. 7,773,967. *Id.* Claim 1 of the ’775 Patent recites:

1. A method for performing interference cancellation in a receiver, with a transmitter and the receiver being co-located with each other, the method comprising:

generating intermodulation product (IMP) cancellation signals (ICSs) to cancel passive IMPs in the receiver, continuously and near real time, using copies of transmitter signals of the transmitter, wherein the passive IMPs are generated in passive transmitter components of the transmitter and receiver components of the receiver after a high powered amplifier (HPA) and transmitter filter of the transmitter, wherein the transmitter filter is coupled between the HPA and an antenna used by the transmitter, wherein generating the ICSs is based on a power

series description of a non-linear process for generating the IMPs, and includes generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering $S1 \times S1 \times S2$ and $S1 \times S2 \times S2$ and $S1 \times S2 \times S3$ and $S1 \times S1 \times S3$ and $S2 \times S2 \times S3$ and $S1 \times S3 \times S3$ and $S2 \times S3 \times S3$, where n is an integer.

Id. at 16:54–17:6 (similar limitations in each of independent claims 4, 16, 21, and 36).

Finesse also asserts dependent claims 9 and 29 that generally relate to generating the ICSs by digitally multiplying and filtering an odd number of digital signals, up to “n” in number, from the transmitter signal set. *See id.* at 18:66–19:3 and 20:39–45.

The ’134 Patent in this case issued from U.S. Application No. 10/146,358 (the “’358 Application”), filed on May 14, 2002. Dkt. No. 136-5 (’134 Patent) at 1. The ’358 Application published as US 2003/0021367 on January 30, 2003, and issued as the ’134 Patent on March 18, 2008. *Id.* Since the ’358 Application published more than a year before the September 6, 2007 earliest possible filing date of the ’510 Application (now the ’775 Patent), the US 2003/0021367 publication qualifies as prior art to the ’775 Patent under 35 U.S.C. § 102(b) (Pre-AIA).

In June 1990, the Electronics & Communication Engineering Journal published an article written by P. L. Lui, titled “Passive intermodulation interference in communication systems” (the “Lui” reference). Dkt. No. 136-6 (Lui). Since the Lui reference also published more than a year before the earliest possible filing date of the ’510 Application, Lui also qualifies as prior art to the ’775 Patent under 35 U.S.C. § 102(b) (Pre-AIA).

During his depositions, Francis Smith—the sole inventor of the ’134 and ’775 Patents—responded to questioning and made certain remarks that Defendants now assert qualify as admissions of prior art. Dkt. No. 136 at 7 (citing multiple portions of 136-8 (8-3-22 Smith Dep. Tr.), 136-9 (8-4-22 Smith Dep. Tr.)). Defendants’ invalidity expert, James Proctor, opines that all

asserted claims of the '775 Patent are obvious over the '134 Patent in view of Lui. Dkt. No. 136 (citing 136-10 (Excerpts of Proctor Rpt.) at ¶¶ 795–880).

Defendants move for summary judgment asserting that the '775 Patent is invalid as being obvious over the '134 Patent in combination with Lui. According to Defendants, there is no genuine dispute of material fact (1) as to the level of ordinary skill in the art, (2) that the prior art discloses all of the claim limitations of the '775 Patent, and (3) that the secondary considerations confirm the asserted claims are obvious.

Issued patents are presumed valid. 35 U.S.C. § 282 (2018); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 412 (2007); *Nature Simulation Sys. v. Autodesk, Inc.*, 50 F.4th 1358, 1361 (Fed. Cir. 2022) (citations omitted). A party seeking to establish that patent claims are invalid must overcome the presumption of validity by clear and convincing evidence. *Nature Simulation Sys.*, 50 F.4th at 1361 (“United States patents are accompanied by a presumption of validity, 35 U.S.C. § 282, and invalidity must be established by clear and convincing evidence.”).

Under 35 U.S.C. § 103, prior art invalidates a patent for obviousness when the “subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.” 35 U.S.C. § 103(a) (Pre-AIA) (2018). Obviousness is a question of law with underlying factual inquiries, including three primary considerations: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; and (3) the differences between the prior art and the claimed invention, and certain secondary considerations—*i.e.*, any objective indicia of nonobviousness—such as commercial success, long felt but unsolved needs, failure of others, etc. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *KSR Int'l Co.* 550 U.S. at 427 (2007) (continuing to follow the *Graham* framework); *see also Transocean Offshore*

Deepwater Drilling, Inc. v. Maersk Contrs. USA, Inc., 617 F.3d 1296, 1303–4 (Fed. Cir. 2010) (identifying additional secondary considerations such as industry skepticism and copying).

In the context of a summary judgment motion for invalidity on grounds of obviousness, “the district court can and should take into account expert testimony, which may resolve or keep open certain questions of fact.” *KSR Int’l Co.*, 550 U.S. 398, 427. In addition, summary judgment of obviousness is only appropriate if “the content of the prior art, the scope of the patent claim, and the level of ordinary skill in the art are not in material dispute, and the obviousness of the claim is apparent in light of these factors.” *See id.*; *Golden Eye Media USA, Inc. v. Evo Lifestyle Prods. Ltd.*, 2022 U.S. App. LEXIS 17145, *8 (Fed. Cir. 2022).

The issue before the Court is whether there is a genuine dispute of material fact (1) as to the level of ordinary skill in the art as to the ’775 Patent, (2) the scope and content of the prior art, (3) regarding the motivation to combine the references in the manner asserted, and (4) as to the extent of any objective indicia of nonobviousness.

A. *The Level of Ordinary Skill in the Art*

Is there a genuine dispute of material fact as to the level of ordinary skill in the art? The Court holds that there is.

Finesse’s validity expert, Dr. Ray Nettleton, opines as to the level of ordinary skill in the art:

a person of ordinary skill in the art would be a person with a bachelor’s degree in electrical engineering or some similar field, along with three or more years of experience with the design of wireless communications equipment. Additional education could substitute for some of the experience, and substantial experience could substitute for some of the educational background.

Dkt. No. 136-11 (Nettleton Validity Rpt.) at ¶ 96. Defendants’ invalidity expert, James Proctor, offers his own opinions as to the level of ordinary skill in the art:

a person of ordinary skill in the art would be a person with a Masters in electrical engineering, computer engineering, or similar fields and at least 2-3 years of work experience in the area of communications systems design and signal processing. A lack of work experience may be compensated for by additional education, and vice versa.

Dkt. No. 136-10 (Proctor Invalidity Rpt.) at ¶ 175.

Defendants assert that the level of ordinary skill in the art is undisputed. Dkt. No. 136 at 11–12. While Defendants identify several distinctions between the level of ordinary skill in the art according to Dr. Nettleton and Mr. Proctor, *id.*, Defendants argue that the level of ordinary skill is substantively identical because both experts opine that a lack of work experience may be substituted for additional education, and vice versa. Dkt. No. 178 at 6–7. Defendants also argue that Dr. Nettleton has not offered any opinions showing that any potential distinction would be relevant. *Id.* at 6. Thus, according to Defendants, there is no genuine dispute over the level of ordinary skill in the art. *Id.* at 7.

Finesse responds by noting the differences in how the parties’ experts describe one of ordinary skill in the art, such as level of education (bachelor’s degree vs. master’s degree) and experience (3+ years vs. 2–3 years). Dkt. No. 157 at 9. According to Finesse, Defendants failed to bridge the gap between the experts’ opinions and, therefore, Defendants have failed to establish by clear and convincing evidence that there is no dispute of material fact as to the level of ordinary skill in the art. *Id.* at 9–10 (citing *Teleflex Inc. v. KSR Int’l Co.*, 298 F. Supp. 2d 581, 590 (E.D. Mich. 2003), *vacated and remanded*, 119 F. App’x 282 (Fed. Cir. 2005), *rev’d*, 550 U.S. 398 (2007), and *aff’d*, 228 F. App’x 988 (Fed. Cir. 2007)).

Here, the Court holds there is a genuine dispute of material fact as to the level of ordinary skill in the art. The experts identify differences in education and experience. While Defendants recognize the differences, Defendants characterize the differences as “razor thin” to avoid

conceding a genuine dispute exists. *See* Dkt. No 178 at 4. At the same time, Defendants refuse to adopt Dr. Nettleton's description of a person of ordinary skill in the art, which provides evidence that a genuine dispute of material fact actually exists. Accordingly, viewing the evidence most favorably to Finesse, as the non-moving party, the Court holds there is a genuine dispute as to the level of ordinary skill in the art. Furthermore, there are additional fact disputes, as outlined below.

B. The Scope and Content of the Prior Art

Is there a genuine dispute of material fact as to scope and content of the prior art? The Court holds that there is.

Defendants argue that the '775 Patent is obvious over the '134 Patent in view of Lui, and testimony from the inventor, Mr. Smith, allegedly supports this view. Dkt. No. 136 at 12–15 (citing Dkt. No. 136-12 (Dr. Nettleton Dep. Tr.) at 76:14-83:12 and 129:12–130:4; Dkt. No. 136-8 (Smith Dep. Tr.) at 195-96). Defendants' position relies on several assumptions: (1) Dr. Nettleton's conclusory remarks are insufficient to rebut Mr. Proctor's opinions and establish a fact dispute; (2) Dr. Nettleton applies the same analysis of claim 1 of the '134 Patent to all of the other asserted claims; and (3) testimony from Dr. Nettleton and Mr. Smith supports Defendants' position. *Id.* (citing *Parallel Networks, LLC v. Abercrombie & Fitch Co.*, 704 F.3d 958, 970 (Fed. Cir. 2013); various portions of Dkt. No. 136-9 (Excerpts 4/8/22 Smith Dep. Tr.); 136-10 (Excerpts Proctor Rpt.); and 136-11 (Excerpts Nettleton Rpt.)). Furthermore, Defendants argue that Dr. Nettleton's opinions that first appear in his deposition rather than his rebuttal report should be excluded. Dkt. No. 178 at 7 (citing *Ericsson Inc. v. Apple Inc.*, 2:21-cv-00376-JRG, Dkt. 247

Finesse responds by arguing that Defendants omit necessary context to understand the cited testimony from Mr. Smith and Dr. Nettleton. Dkt. No. 157 at 5–7 and 10–12 (citing various portions of Dkt. No. 157-1 (Nettleton Rpt.); Dkt. No. 157-2 (Proctor Rpt.); Dkt. No. 157-3 (Proctor Invalidity Rpt.); Dkt. No. 157-4 (Nettleton Dep. Tr.); and Dkt. No. 157-5 (Smith Dep. Tr.)). According to Finesse, the deposition testimony supports Dr. Nettleton’s opinions that (1) the ’134 Patent fails to describe how to use the power series modeling, and (2) Lui fails provide any solution to the problem that the ’775 Patent discloses. *Id.* at 10–11. Therefore, Finesse argues, Defendants failed to satisfy their burden by rebutting Dr. Nettleton’s arguments as to the scope and content of the art. *Id.* at 12.

Here, the Court holds that Defendants have failed to satisfy their burden that there is no genuine dispute of material fact. In contrast to *Parallel Networks, LLC*, Dr. Nettleton’s position does not hinge on an impermissible interpretation of the claim terms. 704 F.3d at 970 (Fed. Cir. 2013) (citation omitted). Rather, Dr. Nettleton’s reasoning appears in ¶¶ 323–333, which is sufficient to rebut Mr. Proctor’s opinions and establish a genuine fact dispute. Dr. Nettleton also supports his decision to apply the same arguments to the independent claims using the charts in ¶ 323 of his report. Dkt. No. 157-1 (Nettleton Rpt.). Further, Dr. Nettleton’s and Mr. Smith’s testimony adequately support Finesse’s validity positions. The Court rejects Defendants’ argument that the Dr. Nettleton cannot rely on deposition testimony because that information does not appear in Dr. Nettleton’s report. In sum, there are multiple grounds that establish a genuine dispute of material fact as to the scope and content of the prior art.

C. Motivation to Combine the '134 Patent and Liu

Is there a genuine dispute of material fact that one of ordinary skill in the art would have been motivated to combine the '134 Patent and Lui in the manner asserted? The Court holds that there is.

To determine whether there was an apparent reason to combine the known elements in the way a patent claims, it will often be necessary to look to interrelated teachings of multiple patents; to the effects of demands known to the design community or present in the marketplace; and to the background knowledge possessed by a person having ordinary skill in the art. To facilitate review, this analysis should be made explicit. But it need not seek out precise teachings directed to the challenged claim's specific subject matter, for a court can consider the inferences and creative steps a person of ordinary skill in the art would employ.

KSR Int'l Co., 550 U.S. at 405.

Defendants assert that a person of ordinary skill in the art would have been motivated to combine the '134 Patent and Lui because both references are in the same field of study and both address problems with intermodulation products in wireless communications. Dkt. No. 136 at 16 (citing 136-10 (Proctor Rpt.) at ¶¶ 804–809); Dkt. No. 178 at 8. According to Defendants, there would have been a reasonable expectation of success for the combination. Dkt. No. 178 at 9. Furthermore, Defendants argue that the references do not teach away from the combination, and that the facts are distinguishable from cases involving “teaches away” arguments. *Id.*

In response, Finesse argues that Dr. Nettleton explains that Lui teaches away from the techniques directed at interference cancellation because Lui discusses site hygiene to address passive nonlinearities, and Mr. Proctor fails to rebut the “teaching away” arguments. Dkt. No. 157 at 12–13 (citing 157-2 (Dr. Nettleton Rpt.) at ¶¶ 43, 324). In addition, Finesse asserts that Defendants use impermissible hindsight to support their arguments. *Id.* at 14–15.

Here, the Court holds that there is a genuine dispute as to material fact. Dr. Proctor and Dr. Nettleton offer conflicting opinions as to whether one of ordinary skill in the art would have been motivated to combine the references in the manner asserted by Defendants. While the Court agrees with Defendants that a reference expressing a preference for an alternative does not rise to the level of teaching away, the Court does not impermissibly wade into factual issues that are proper for the jury to resolve.

D. Secondary Considerations

Is there a genuine dispute of material fact as to secondary considerations of nonobviousness? The Court holds that there is.

Defendants assert that the secondary considerations support that the '775 Patent is obvious. Dkt. No. 136. Defendants argue that they have established a strong *prima facie* case of obviousness, which cannot be overcome by secondary considerations. Dkt. No. 178 at 10 (citing *NantKwest, Inc. v. Lee*, 686 F. App'x 864, 873 (Fed. Cir. 2017)). In addition, Defendants assert that the secondary considerations merely include Dr. Nettleton's anecdotal experience, conclusory opinions, "professional acclaim" that is highly suspect, citations by other patents, and Nokia's alleged use of the inventions without demonstrating any products practice the asserted claims. Dkt. No. 136 at 16–19 (citing various portions of 136-8 (8-3-22 Smith Dep. Tr.); Dkt. No. 136-9 (8-4-22 Smith Dep. Tr.); Dkt. No. 136-11 (Nettleton Rebuttal Rpt.); and Dkt. No. 136-12 (Nettleton Dep. Tr.)).

Here, the Court holds that there are genuine disputes of material fact as to secondary considerations. Defendants recognize that Finesse raises secondary considerations, but assert that Finesse cannot overcome Defendants' strong *prima facie* showing of obviousness. For the reasons previously discussed, the Court disagrees that Defendants have established a strong

prima facie showing of obviousness and holds that fact disputes exist as to secondary considerations along with the rest of the *Graham* factual inquiries. Thus, this motion should be **DENIED**.

VI. Conclusion

For the reasons previously discussed, the claims do not require that the signals S1, S2, and S3 are three unique input signals. Genuine disputes of material fact remain for the jury to resolve with respect to each of Defendants' motions for summary judgment. For the reasons previously discussed, the Court recommends **DENYING** the motions for summary judgment (Dkt. Nos. 134, 135, 136).

A party's failure to file written objections to the findings, conclusions, and recommendations contained in this report **by not later than January 2, 2023** bars that party from *de novo* review by the District Judge of those findings, conclusions, and recommendations and, except on grounds of plain error, from appellate review of unobjected-to factual findings and legal conclusions accepted and adopted by the district court. Fed. R. Civ. P. 72(b)(2); *see Douglass v. United Servs. Auto. Ass'n*, 79 F.3d 1415, 1430 (5th Cir. 1996) (*en banc*). Any objection to this Report and Recommendation must be filed in ECF under the event "Objection to Report and Recommendations [cv, respoth]" or it may not be considered by the District Judge.

SIGNED this 21st day of December, 2022.


ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE